

**Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

AIR QUALITY PERMIT

Permittee Name: Westvaco Kentucky, L.P.
Mailing Address: 1724 Westvaco Road
P.O. Box 278
Wickliffe, KY 42087-0278

Source Name: Westvaco Kentucky, L.P.
Mailing Address: same as above

Source Location: KY Highway 51 South
County: Ballard

Permit Type: Federally-Enforceable
Review Type: PSD

Permit Number: VF-01-002
Log Number: 53244
Application
Complete Date: November 27, 2000

KYEIS ID ID #: 21-007-00002
SIC Code: 2621

Regional Office: Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003-0823
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Issuance Date: February 27, 2002
Expiration Date: February 27, 2007

**John Lyons, Director
Division for Air Quality**

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Unit 00 Entire Mill

Description:

This emissions unit ID represents the entire pulp and paper mill.

Rated Short-term Capacity: 1100 Air-Dried Tons of Unbleached Pulp (ADTUP) per day

Installation Date: July 1970

APPLICABLE REGULATIONS:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:
F-99-009

Other regulations as described for specific emissions units affected by this permit and contained herein.

1. Operating Limitations:

Pulp production shall not exceed 367,100 air-dried tons per rolling 12 month period. [401 KAR 51:017, 40 CFR 52.21 (PSD)]

Compliance Demonstration Method: Monthly pulp production records shall be maintained and totaled for each rolling 12-month period.

- 2. Emissions Limitations:** Not Applicable to the Entire Mill. Emission limitations associated with specific emission units as a result of this PSD permit are noted with the emission unit section of this permit.
- 3. Testing Requirements:** Not Applicable to the Entire Mill. Testing requirements associated with specific emission units as a result of this PSD permit are noted with the emission unit section of this permit.
- 4. Specific Monitoring Requirements:** Pulp production (ADTP) shall be monitored monthly.
- 5. Specific Recordkeeping Requirements:** Records of pulp production (ADTP) shall be maintained in accordance with the general requirements of Section F.
- 6. Specific Reporting Requirements:** See Section F.
- 7. Specific Control Equipment Operating Conditions:** Unit Specific, Not Applicable.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 03 Recovery Furnace

Description:

The chemical recovery furnace is designed to recover and regenerate spent cooking chemicals from the wood pulping operations. The furnace also serves as the primary steam generating unit at the mill. The unit is controlled by a wet bottom ESP followed by a wet scrubber.

Rated Short-term Capacity: 473,000 lb steam/hr

Installation Date: July 1970

Permitted Modifications:

- Improved furnace ash chemistry;
- Re-evaluate current sootblowing sequence;
- Optimize recovery furnace scrubber to handle increased solids load to existing BLO system;
- Circulation study.

APPLICABLE REGULATIONS:

Regulation 401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Regulation 401 KAR 61:025. *Existing kraft (sulfate) pulp mills*, provides standards for the control of emissions from existing kraft (sulfate) pulp mills.

Kentucky Air Quality Operating Permits:

O-84-088

F-99-009

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart MM [**Future Effective Requirement- January 2004**]

1. **Operating Limitations:** Not Applicable.

2. **Emissions Limitations:**

- a. Emissions of total reduced sulfur (TRS) shall not exceed an exit stack gas concentration of forty (40) parts per million by volume, corrected to eight (8) percent by volume oxygen, for more than sixty (60) total minutes in any twenty-four (24) hour period. [401 KAR 61:025 Section 4(2)]

Compliance Demonstration Method: Permittee will continuously monitor TRS emissions. Compliance will be demonstrated by the generation of a daily report documenting any periods where TRS concentration exceeded 40 ppmv @ 8% O₂.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Emissions of particulate matter (PM) shall not exceed 1.35 lbs/ton of equivalent unbleached air dried pulp produced. [401 KAR 51:017 Section 1(30), 40 CFR 52.21(b)(3) (PSD netting)]

Compliance Demonstration Method: Permittee will demonstrate compliance through emission testing as discussed in 3. Testing Requirements below and by the proper operation and maintenance of the ESP and scrubber in accordance with manufacturer's recommended operating practices.

- c. Emissions of total reduced sulfur (TRS) shall not exceed an exit stack gas concentration of fifteen (15) parts per million by volume, corrected to eight (8) percent by volume oxygen, expressed as an arithmetic average over any consecutive twenty-four (24) hour period. [401 KAR 61:025 Section 4(1)]

Compliance Demonstration Method: Permittee will continuously monitor TRS emissions. Compliance will be demonstrated by a daily report containing an hourly calculation of the arithmetic average concentration, in ppmv @ 8% O₂ (by volume), over the previous twenty-four (24) hour period.

- d. Visible emissions shall not exceed an opacity of forty (40) percent. [401 KAR 61:025 Section 3(4)]

Compliance Demonstration Method: Opacity monitoring or visible emissions observations from this unit are hindered due to the moisture interference from the wet scrubber. Permittee will demonstrate compliance by the proper operation and maintenance of the ESP and scrubber in accordance with manufacturer's recommended operating practices.

- e. Emissions of sulfur dioxide (SO₂) shall not exceed 0.29 lbs/ton of equivalent unbleached air dried pulp produced. [401 KAR 51:017 Section 1(30), 40 CFR 52.21(b)(3) (PSD netting)]

Compliance Demonstration Method: Permittee will demonstrate compliance by the proper operation and maintenance of the scrubber in accordance with manufacturer's recommended operating practices.

3. Testing Requirements:

- a. Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.
- b. Within one (1) year after issuance of this permit, the permittee must perform a stack test to determine the particulate matter (PM) emission rate. See Section G(d)6.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. Permittee shall calibrate, maintain, and operate according to manufacturer's specifications a device to continuously measure the total reduced sulfur (TRS) compounds emitted from the recovery furnace exhaust.
- b. Permittee shall measure pressure drop, scrubbant flow rate, and pH of the scrubber once per shift.
- c. Permittee shall monitor precipitator currents, voltages, and check heater operation once per shift.
- d. Permittee shall conduct an inspection of the precipitator vibrators, rappers, and air horns once per day to assure proper operation.

5. Specific Recordkeeping Requirements:

- a. Permittee shall maintain continuous records of TRS emissions from the recovery furnace.
- b. Permittee shall record monitor availability each calendar quarter. For the purpose of calculating monitor downtime, periods of downtime due to scheduled normal monitor maintenance, calibrations, relative accuracy tests, and quality assurance audits do not have to be considered in the total. A log is to be kept of all periods of monitor downtime listing the time the monitor went off-line, the reason for the downtime, the time the monitor was brought back on-line, and any repairs, adjustments, and calibrations performed on the monitor.
- c. Permittee shall maintain the daily reports documenting any periods where TRS concentration exceeded 40 ppmv @ 8% O₂ and the calculations of arithmetic average concentration, in ppmv @ 8% O₂ (by volume), over each consecutive twenty-four (24) hour period.
- d. Permittee shall maintain records, recorded once per shift, documenting the scrubber pressure drop, flow rate, and pH.
- e. Permittee shall maintain records, recorded once per shift, documenting the precipitator currents, voltages, and heater parameters.
- f. Permittee shall maintain records, recorded once per day, documenting proper operation of the precipitator vibrators, rappers, and air horns.
- g. Permittee shall record each incident when PM or SO₂ emissions were not properly controlled by the scrubber, or PM emissions were not properly controlled by the ESP. This record shall include the date, time, duration, cause, and any corrective action taken.

All records shall be kept for a period of five years.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

- a. If monitor downtime in a calendar quarter exceeds 44 hours or 2% of the recovery furnace operating time, whichever is less, then a written report containing all the information required in Condition 5b shall be submitted to the Paducah Regional Office of the Division for Air Quality by the 28th day of the first month of the next calendar quarter.
- b. Any monitor downtimes of more than eight hours in any calendar day shall be promptly reported to the Paducah Regional Office of the Division for Air Quality by phone, facsimile transmission, or electronic mail within one business day.
- c. A summary of the precipitator and scrubber inspection logs shall be included in the semi-annual report submitted to the Division for Air Quality.

Please refer to additional requirements in Section F.

- 7. Specific Control Equipment Operating Conditions:** Permittee shall operate the ESP and wet scrubber in accordance with manufacturer's recommended operating practices. Please refer to Section E.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 05 Digester System

Description:

Vent gases from the digester relief and blow tank are vented to the mill's NCG system. The gases from the NCG system are incinerated in either the bark boiler (EP-09) or the lime kiln (EP-08).

Rated Short-term Capacity: 50 ton/hr

Installation Date: July 1970

Permitted Modifications:

Approved changes to the Digester System include:

- Top circulation pump replacement,
- Modification of the top separator screw conveyer,
- Miscellaneous pump and piping changes, and a
- Conversion to allow low-solids cooking.

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:

O-84-088

S-94-087

F-99-009

Standards of Performance for New Stationary Sources

40 CFR 60 Subpart BB

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [**See Unit No. 57 - LVHC System for applicable Subpart S requirements**]

1. Operating Limitations:

- a. Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Permittee will assure compliance with the 40 CFR 60 Subpart BB standards based on the existing federally enforceable conditions and monitoring and reporting requirements outlined for this emission unit and the primary and secondary treatment systems (i.e., the Bark Boiler and Lime Kiln, respectively).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. All vent gases shall be collected and vented to an NCG system as defined at 40 CFR 63.441. [40 CFR 63.443(a)(1)(i)]

Compliance Demonstration Method: Permittee vents all gases from the digester blow tank and the relief gas system to the appropriate NCG system.

2. **Emission Limitations:** Not Applicable.

3. **Testing Requirements:**

Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.

4. **Specific Monitoring Requirements:**

Permittee will monitor NCG control system as described for Emission Unit 57 – LVHC System.

5. **Specific Recordkeeping Requirements:**

Permittee will monitor NCG control system as described for Emission Unit 57 – LVHC System.

6. **Specific Reporting Requirements:** See Section F.

7. **Specific Control Equipment Operating Conditions:**

Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 06 Multiple Effect Evaporator System

Description:

Vent gases from the multiple effect evaporator are vented to the mill's NCG system. The gases from the NCG system are incinerated in either the Bark Boiler (EP-09) or the Lime Kiln (EP-08).

Rated Short-term Capacity: 120,000 gal/hr

Installation Date: July 1970

Permitted Modifications:

Approved changes to the Multiple Effect Evaporator System include:

- Revised evaporator processing sequence,
- Pump and piping changes,
- Addition of an auxiliary surface condenser.

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:

O-84-088

S-94-087

F-99-009

Standards of Performance for New Stationary Sources

40 CFR 60 Subpart BB

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [See Unit No. 57 - LVHC System for applicable Subpart S requirements]

1. Operating Limitations:

- a. Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Permittee will assure compliance with the 40 CFR 60 Subpart BB standards based on the existing federally enforceable conditions and monitoring and reporting requirements outlined for this emission unit and the primary and secondary treatment systems (i.e., the Bark Boiler and Lime Kiln, respectively).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. All vent gases from the multiple effect evaporator system shall be collected and vented to the LVHC system as defined at 40 CFR 63.441. [40 CFR 63.443(a)(1)(i)]

Compliance Demonstration Method: Permittee vents all gases to the LVHC system.

2. **Emissions Limitations:** Not Applicable.
3. **Testing Requirements:**
Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.
4. **Specific Monitoring Requirements:**
Permittee will monitor NCG control system as described for Emission Unit 57 – LVHC System.
5. **Specific Recordkeeping Requirements:**
Permittee will monitor NCG control system as described for Emission Unit 57 – LVHC System.
6. **Specific Reporting Requirements:** See Section F.
7. **Specific Control Equipment Operating Conditions:**
Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 08 Lime Kiln

Description:

The lime kiln is used to calcine lime mud to regenerate quicklime which is used in the production of white liquor. The unit is controlled by a wet scrubber. The kiln is also used as an incineration point for the NCG vent streams in the mill.

Rated Short-term Capacity: 350 tpd Lime

Installation Date: July 1970

Permitted Modifications:

Only modified under Alternate Operating Scenario No. 1. Secondary point of incineration for NCG gases from EP 05 and 06 regardless of operating scenario. Secondary point of incineration for NCG gases from EP 11 under Alternate Operating Scenario No. 2.

Applicable Regulations:

Regulation 401 KAR 61:025. *Existing Kraft (sulfate) pulp mills*. This administrative regulation provides standards for the control of emissions from existing Kraft (sulfate) pulp mills.

Kentucky Air Quality Operating Permits:

O-84-088

F-99-009

S-94-087

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [See Unit No. 56 HVLC System and 57 LVHC System for applicable Subpart S requirements]

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart MM [Future Effective January 2004]

1. Operating Limitations:

- a. The lime kiln shall be operated in excess of 1200 degrees Fahrenheit with a residence time of at least 0.5 seconds to achieve a 98% destruction efficiency when being used as a control device to meet the requirements of 40 CFR 60 Subpart BB. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Compliance shall be based on achieving an arithmetic average combustion temperature of 1200 degrees Fahrenheit or more over any five (5) minute period. Permittee will demonstrate compliance by monitoring the lime kiln combustion temperature. The kiln is interlocked to switch NCGs to the bark boiler should the temperature fall below 1200 degrees F. Permittee also maintains records demonstrating that the residence time is equal to or greater than 0.5s.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emissions Limitations:

- a. Visible emissions shall not exceed an opacity of forty (40) percent. [401 KAR 61:025 Section 3(4)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard by conducting at least one Method 9 observation per month.

- b. Emissions of particulate matter (PM) shall not exceed 1.0 lbs/ton of equivalent unbleached air dried pulp produced. [401 KAR 61:025 Section 3(2)]

Compliance Demonstration Method: Permittee will demonstrate compliance by the proper operation and maintenance of the scrubber in accordance with manufacturer's recommended operating practices.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.

4. Specific Monitoring Requirements:

- a. Permittee shall monitor the lime kiln combustion temperature.
- b. Permittee shall measure the pressure drop and scrubbant flow rate of the scrubber once per shift.
- c. Permittee shall perform a Method 9 observation on emissions from the lime kiln at least once per month.

5. Specific Recordkeeping Requirements:

- a. Permittee shall maintain records of combustion temperature for the lime kiln and shall perform the necessary calculations to verify the residence time is equal to or greater than 0.5 second.
- b. Permittee shall maintain records, once per shift, documenting the pressure drop and scrubbant flow rate.
- c. Permittee shall record each incident when PM emissions were not properly controlled by the scrubber. This record shall include the date, time, duration, cause, and any corrective action taken.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. Permittee shall maintain a log (with dates and times recorded) of all Method 9 readings of emissions from the lime kiln.

All records shall be kept for a period of five years.

6. Specific Reporting Requirements: See Section F.

7. Specific Control Equipment Operating Conditions:

The permittee shall apply the provisions of Section E – Source Control Equipment Requirements to the operation of the scrubber.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 09 Bark Boiler

Description:

The bark boiler is a multi-fuel boiler that supplies a significant portion of the mill's steam supply. Fuels fired include: bark/wood waste, waste treatment sludge, waste oil, and natural gas. The unit is controlled by an ESP. The bark boiler is also used as the primary incineration point for the NCG vent streams in the mill.

Rated Short-term Capacity: 450,000 lb steam/hr

Installation Date: 1979

Permitted Modifications:

Only modified under Alternate Operating Scenario No. 1. Primary point of incineration for NCG gases from EP 05 and 06 regardless of operating scenario. Primary point of incineration for NCG gases from EP 11 under Alternate Operating Scenario No. 2.

Applicable Regulations:

Regulation 401 KAR 59:015. *New indirect heat exchangers*. This administrative regulation provides standards for the control of emissions from new indirect heat exchangers.

Kentucky Air Quality Operating Permits:

O-84-088

C-89-148

F-99-009

S-94-087

Standards of Performance for New Stationary Sources

40 CFR 60 Subpart D

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 61 Subpart E - Standard for Mercury

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [See Unit No. 56 - HVLC System and 57 - LVHC System for Applicable Subpart S Requirements]

1. Operating Limitations:

- a. The rate of firing the waste oil shall not exceed 1,500 gallons per month. [Permit C-89-148 Condition 09-1 --- State-Origin Operating Limitation]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard by maintaining monthly fuel throughput records.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. The rate of firing the waste oil shall not exceed 200 gallons per hour. [Permit C-89-148 Condition 09-1 --- State-Origin Operating Limitation]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard by maintaining hourly records of the quantity of waste oil fired in the boiler.

- c. The Bark Boiler shall be operated in excess of 1200 degrees Fahrenheit with a residence time of at least 0.5 seconds. This will assure a 98% destruction efficiency when being used as a control device to meet the requirements of 40 CFR 60 Subpart BB. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Permittee will demonstrate compliance by monitoring to ensure that the bark boiler steam load is maintained at or in excess of 90,000 lb/hr to maintain a temperature of 1200 degrees Fahrenheit or more. Compliance is assumed if the arithmetic average steam load is 90,000 lb/hr over a fifteen minute averaging period. Permittee maintains records demonstrating that the residence time is equal to or greater than 0.5s.

- d. Waste treatment sludge may be burned in the bark boiler up to 15% of the total heat input to the bark boiler on a monthly average. [State-Origin Operating Limitation, 11-98 letter]

Compliance Demonstration Method: Permittee will demonstrate compliance by monitoring fuel firing rates and maintaining fuel heat content analysis for each fuel fired.

- e. No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase mercury emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the division. [40 CFR 61.53(e)]

Compliance Demonstration Method: The division will be notified and applicable testing will be conducted should any changes in the operation of the plant that could increase mercury emissions be considered.

- f. Maximum hourly heat input shall not exceed:
- 463 MMBtu/hr when firing 55% moisture content wood residue
 - 634 MMBtu/hr when firing 30% moisture content wood residue
 - 631 MMBtu/hr when firing any optimum mixture of wood residue and natural gas
- [Permit C-89-148 Condition 09-2]

Compliance Demonstration Method: Permittee will demonstrate compliance by monitoring daily fuel firing rates for each fuel fired and determining fuel heat content analysis at least four (4) times per month for bark. The data shall be summarized and compliance determined on a rolling 30 day average basis.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- g. Coal or fuel oil shall not be used as fuel. [Permit C-89-148 Condition 09-7]

Compliance Demonstration Method: Permittee will demonstrate compliance by monitoring fuel firing rates for each fuel fired.

2. Emissions Limitations:

- a. Emissions of particulate matter (PM) shall not exceed 0.1 lb/MMBtu heat input. [401 KAR 59:015 Section 4(1)(b) and 40 CFR 60.42(a)(1)]

Compliance Demonstration Method: Permittee will continue to demonstrate compliance with this standard through emission testing and by the proper operation and maintenance of the ESP in accordance with manufacturer's recommended operating practices.

- b. Emission of sulfur dioxide (SO₂) shall not exceed 0.8 lb/MM Btu heat input. [401 KAR 59:015 Section 5(1)(b) and 40 CFR 60.43(a)(1)]

Compliance Demonstration Method: Permittee will continue to demonstrate compliance with this standard through emission testing. Compliance shall be based on the total heat input from the fuels burned, including gaseous fuels.

- c. Opacity of visible emission shall not exceed twenty (20) percent except that a maximum of twenty-seven (27) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes. [401 KAR 59:015 Section 4(2) and 40 CFR 60.42(a)(2)]

Compliance Demonstration Method: Permittee demonstrates compliance with this standard by continuously monitoring opacity.

- d. Emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges shall not exceed 3200 grams of mercury per 24-hour period. [40 CFR 61.52(b)]

Compliance Demonstration Method: Permittee demonstrated compliance through an initial sludge sampling test pursuant to the requirements outlined in 40 CFR 61.54. Results of the test demonstrated that emissions of mercury are less than 1600 g/day. Test was conducted in Jan 1999 and results are contained in a Westvaco Environmental Dept. file.

- e. Emission of nitrogen oxides (NO_x) shall not exceed 0.40 lb/MMBtu heat input. [401 KAR 59:015 Section 6(2) and 40 CFR 60.44(b)]

Compliance Demonstration Method: Permittee will continue to demonstrate compliance with this standard through emission testing.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.

4. Specific Monitoring Requirements:

- a. Permittee shall collect at least four (4) bark samples each month to determine moisture and Btu content.
- b. Permittee shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions. [40 CFR 60.45(a)]
- c. Permittee shall monitor the bark boiler combustion temperature or steam load.
- d. Permittee shall monitor the amount of natural gas, wood waste, and waste treatment sludge combusted on a daily basis, and the amount of waste oil combusted on an hourly basis.

5. Specific Recordkeeping Requirements:

- a. Permittee shall maintain records of sludge sampling, charging rate determination, and other data needed to determine mercury content of wastewater treatment plant sludges. [40 CFR 61.54(g)]
- b. Permittee shall maintain records of the bark boiler heat input 30-day rolling average.
- c. Permittee shall maintain records of steam flow rate for the bark boiler and shall perform the necessary calculations to verify the residence time is equal to or greater than 0.5 second and that 90,000 lb steam per hour is adequate to maintain 1200 °F.
- d. Permittee shall maintain records of natural gas, waste treatment sludge, and waste wood combusted.
- e. Permittee shall maintain records of the days and amounts of waste oil combusted.
- f. Permittee shall maintain continuous records of the opacity of emissions from the bark boiler.

6. Specific Reporting Requirements: See Section F.

7. Specific Control Equipment Operating Conditions:

- a. The bark boiler must be at a minimum of 90,000 lb/hr steam flow prior to accepting NCG system vent gases to ensure acceptable destruction efficiency.
- b. The permittee shall apply the provisions of Section E – Source Control Equipment Requirements to the operation of the ESP.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 52 Coater Complex

Description:

The coating complex includes all coater-related process equipment. This process group was created to demonstrate compliance with several mill-wide emission limitations from these operations.

Rated Short-term Capacity: 67 tons/hr

Installation Date: August 1989

Permitted Modifications:

Approved changes include:

- Relocate paper machine size press to the coater complex at the beginning of the coater line,
- Gauging system upgrades,
- Upgrade/install roll coaters, and
- Calendar rebuild.

Applicable Regulations:

Regulation 401 KAR 63:021. *Existing sources emitting toxic air pollutants.* A source in existence on the effective date of this administrative regulation which was issued a permit pursuant to 401 KAR 50:035 with conditions based on this administrative regulation or 401 KAR 63:022 shall continue to comply with all conditions based on this administrative regulation or 401 KAR 63:022 unless it can demonstrate that a condition is no longer necessary to protect human health and the environment.

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:
C-89-033

1. **Operating Limitations:** Not Applicable.

2. **Emissions Limitations:**

- a. Emissions of Volatile Organic Compounds from the Coating Process shall not exceed 39.9 tons/yr.
[Permit C-89-033 Condition G-15 and 40 CFR 52.21 (Avoid PSD)]

Compliance Demonstration Method: Permittee will demonstrate compliance by maintaining annual material consumption, MSDS sheets, and by calculating emissions using a mass balance.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Coater Complex emission rate of Ammonia shall not exceed 22.89 lb/hr and 99.99 tons/yr.
[Permit C-89-033 Condition G-14(1) State-Origin Emissions Limitation]

Compliance Demonstration Method: Permittee will demonstrate compliance by maintaining material consumption and MSDS records, and by calculating emissions using a mass balance.

- c. Coater Complex emission rate of 1,3 Butadiene shall not exceed 1.74 lb/hr and 7.6 tons/yr.
[Permit C-89-033 Condition G-14(3) State-Origin Emissions Limitation]

Compliance Demonstration Method: Permittee will demonstrate compliance by maintaining material consumption and MSDS records, and by calculating emissions using a mass balance.

- d. Coater Complex emission rate of Vinyl Acetate shall not exceed 5.35 lb/hr and 23.38 tons/yr.
[Permit C-89-033 Condition G-14(2) State-Origin Emissions Limitation]

Compliance Demonstration Method: Permittee will demonstrate compliance by maintaining material consumption and MSDS records, and by calculating emissions using a mass balance.

3. **Testing Requirements:** Not Applicable.
4. **Specific Monitoring Requirements:** Permittee will monitor material consumption and maintain MSDS records for all coatings used.
5. **Specific Recordkeeping Requirements:** Permittee will maintain material consumption, and material MSDS records for a period of five years.
6. **Specific Reporting Requirements:** See Section F.
7. **Specific Control Equipment Operating Conditions :** Should the size press be constructed, low NOx burners will be installed as supported by the Best Available Control Technology determination included in the application. [40 CFR 52.21(j)(3)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 57 Low Volume High Concentration (LVHC) System

Description:

Unit consists of the turpentine condenser, digester discharge tank, and evaporator systems and gas collection and transport system used to convey LVHC gases to the bark boiler (primary control system) or lime kiln (secondary control system) as defined in 40 CFR 63.441.

Rated Short-term Capacity: 1200 Air-Dried Tons of Unbleached Pulp per Day

Installation Date: April 16, 2001 (Initial MACT Compliance Date)

Permitted Modifications:

Not modified. Included as the primary system for venting NCG gases from Emission Units 05 and 06 to the bark boiler (primary control system) or lime kiln (secondary control system).

Applicable Regulations:

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S

1. Operating Limitations:

a. Operating Requirements. [40 CFR 63.443(c)]

Affected systems shall be enclosed and vented into a closed-vent system meeting the following requirements:

- Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in 40 CFR 63.457(e).
- Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.
- Each component of the closed-vent system used to comply with 63.443(c), 63.444(b), and 63.445(b) that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in 40 CFR 63.457(d).
- Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in 63.443, 63.444, or 63.445 shall comply with either of the following requirements:
 - (1) On each bypass line, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or
 - (2) For bypass line valves that are not computer controlled, the owner or operator shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Affected systems shall comply with the requirements of 40 CFR 63 Subpart A – General Provisions as specified in 40 CFR Part 63 Subpart S Table 1.

2. Emissions Limitations:

Permittee shall vent both LVHC and HVLC gases to an effective control device. Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed four (4) percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems. [40 CFR 63.443(e)]

3. Testing Requirements: Not Applicable.**4. Specific Monitoring Requirements:**

Each enclosure and closed-vent system used to comply with 40 CFR 63.450(a) shall comply with the following monitoring requirements [40 CFR 63.453(k)]:

- (1) For each enclosure opening, a visual inspection of the closure mechanism specified in 40 CFR 63.450(b) shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.
- (2) Each closed-vent system required by 40 CFR 63.450(a) shall be visually inspected every 30 days and at other times as requested by the division. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.
- (3) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in 40 CFR 63.450(c) measured initially and annually by the procedures in 40 CFR 63.457(d).
- (4) Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 40 CFR 63.457(e).
- (5) The valve or closure mechanism specified in 40 CFR 63.450(d)(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.
- (6) If an inspection required by paragraphs (k)(1) through (k)(5) of this section identifies visible defects in ductwork, piping, enclosures or connections to covers required by 40 CFR 63.450, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.
 - (i) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.
 - (ii) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

For each applicable enclosure opening, closed-vent system, and closed collection system, the owner or operator shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection [40 CFR 63.454(b)]:

- (1) Date of inspection;
- (2) The equipment type and identification;
- (3) Results of negative pressure tests for enclosures;
- (4) Results of leak detection tests;
- (5) The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
- (6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
- (7) Repair methods applied in each attempt to repair the defect or leak;
- (8) The reason for the delay if the defect or leak is not repaired within 15 days after recovery;
- (9) The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- (10) The date of successful repair of the defect or leak;
- (11) The position and duration of opening of bypass line valves and the condition of any valve seals;
and
- (12) The duration of the use of bypass valves on computer controlled valves

6. Specific Reporting Requirements: Each owner or operator of a source subject to this permit shall comply with the reporting requirements of Subpart A of this part as specified in Table 1 and all the following requirements in this section. [40 CFR 63.455(a)]

7. Specific Control Equipment Operating Conditions:

Affected systems vented into a closed-vent system shall be routed to the bark boiler or lime kiln by introducing the HAP emission stream with the primary fuel or into the flame zone or to the bark boiler and introducing the HAP emission stream with the combustion air. [40 CFR 63.443(d)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 64 Paper Machine System

Description:

The paper machine system includes all paper machine process equipment.

Rated Short-term Capacity: 67 tons/hr

Installation Date: July 1970

Permitted Modifications:

Approved changes include:

- Upgrade of the roll wrapper,
- Replace the roof on the paper machine complex,
- Gauging system upgrades.
- Press pit pulper upgrade,
- Pocket ventilation system changes,
- Machine rebuild (i.e., rebuild headbox, shoe press, reel, calendar stack, and drive), and
- Move size press to before the coater

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

1. **Operating Limitations:** Permittee shall use only clean process water. Clean process water is considered to be any water except foul pulping condensates. [40 CFR 52.21(j)(3)].
2. **Emissions Limitations:** Not Applicable.
3. **Testing Requirements:** Not Applicable.
4. **Specific Monitoring Requirements:** Not Applicable.
5. **Specific Recordkeeping Requirements:** Not Applicable.
6. **Specific Reporting Requirements:** Not Applicable.
7. **Specific Control Equipment Operating Conditions:** Based on the summary of the Best Available Control Technology evaluation, no control is required for the potential emissions of VOC from the Paper Machine Complex. [40 CFR 52.21(j)(3)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 65 Causticizing Area/Green Liquor System

Description:

The Causticizing Area/Green Liquor System includes the lime slaker, green liquor and white liquor clarifiers, causticizers and assorted pumps, piping, and tanks.

Rated Short-term Capacity: 1200 Air-Dried Tons of Unbleached Pulp per Day

Installation Date: July 1970

Permitted Modifications:

Approved changes include:

- Addition of a new causticizer,
- Replacement or modification of the existing slaker,
- Addition of a new white liquor disk filter, and
- Miscellaneous pump and piping changes.

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

1. **Operating Limitations** : Based on the summary of the Best Available Control Technology evaluation, no control is required for the potential emissions of VOC from the Causticizing Area/Green Liquor System. [40 CFR 52.21(j)(3)].
2. **Emissions Limitations** : Not Applicable.
3. **Testing Requirements** : Not Applicable.
4. **Specific Monitoring Requirements** : Not Applicable.
5. **Specific Recordkeeping Requirements** : Not Applicable.
6. **Specific Reporting Requirements** : Not Applicable.
7. **Specific Control Equipment Operating Conditions** : Based on the summary of the Best Available Control Technology evaluation, no control is required for the potential emissions of VOC from the Causticizing Area/Green Liquor System. [40 CFR 52.21(j)(3)].

SECTION C – INSIGNIFICANT ACTIVITIES

Not Applicable.

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING
REQUIREMENTS**

See Unit 00 – Entire Mill in section B and Unit 00 – Entire Mill in Section H (AOS No. 1).

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. All air pollution control devices shall be maintained regularly in accordance with good engineering practices and recommendations of the respective manufacturer. The permittee shall monitor and maintain records of all maintenance activities performed at all control devices, including preventive maintenance and routine inspections.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements.
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.[Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1]
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Material incorporated by reference by 401 KAR 52:020, Sections 1b(IV) 2 and 1a(8)]
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
 - e. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.
[Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.]

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due prior to January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Material incorporated by reference by 401 KAR 52:020, Section 1b V 3, 4.]
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the time frames specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003-0823**

**U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960**

**Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601**

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G – GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including termination, revocation and reissuance, revision or denial of a permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 3]
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 6]
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

3. The permittee shall furnish information upon requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 7,8]
4. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [Material incorporated by reference by 401 KAR 52:020, Section 7(1)]

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 14]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 4]
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 15)b]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Material incorporated by reference by 401 KAR 52:020, Section 1a, 10]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]
11. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 9]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]
15. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in the permit and
 - (b) Non-applicable requirements expressly identified in this permit.
16. The permittee shall continue to comply with all previously issued construction and operating permits.

SECTION G - GENERAL PROVISIONS (CONTINUED)**(b) Permit Expiration and Reapplication Requirements**

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020, Section 12]
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL PROVISIONS (CONTINUED)

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the cabinet.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Any performance tests must be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.
6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of a required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:

SECTION G - GENERAL PROVISIONS (CONTINUED)

- a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within ten (10) working days of the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source from other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]
 3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP REPORTING CENTER

P.O. Box 3346

Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- (i) Additional requirements:

The following federal requirement general provisions shall apply:

NSPS GENERAL PROVISIONS

60.1 Applicability

60.2 Definitions

60.3 Units and Abbreviations

60.4 Address

60.5 Determination of construction or modification

60.6 Review of plans

60.7 Notification and record keeping

60.7(a)(4)

60.7(b) through (h)

60.8 Performance tests

60.8(b)

60.8(c)

60.8(d)

60.8(e)

60.8(f)

60.9 Availability of information

60.10 State authority

60.11 Compliance with standards and maintenance requirements

60.11(a)

60.11(b)

60.11(c)

60.11(d)

60.11(e)

60.11(e)(2)

60.11(e)(5)

60.11(e)(6)

60.11(f)

60.11(g)

60.12 Circumvention

SECTION G - GENERAL PROVISIONS (CONTINUED)

60.13 Monitoring requirements

60.13(a)

60.13(c)

60.13(d)

60.13(e)

60.13(f)

60.13(h)

60.13(i)

60.13(j)

60.14 Modification

60.15 Reconstruction

60.16 Priority List

60.17 Incorporations by reference

60.19 General notification and reporting requirements

NESHAP GENERAL PROVISIONS

61.01 List of pollutants and applicability of part 61

61.02 Definitions

61.03 Units and Abbreviations

61.04 Address

61.05 Prohibited activities

61.06 Determination of construction or modification

61.07 Application for approval of construction or modification

61.08 Approval of construction or modification

61.09 Notification of startup

61.10 Source reporting and waiver request

61.10(c)

61.10(d)

61.10(e)

61.10(f)

61.10(g)

61.10(h)

61.10(i)

61.10(j)

61.12 Compliance with standards and maintenance requirements

61.15 Modification

61.16 Availability of information

61.17 State authority

61.18 Incorporation by reference

61.19 Circumvention

SECTION G - GENERAL PROVISIONS (CONTINUED)

MACT GENERAL PROVISIONS (40 CFR 63 Subpart A)

63.1(a)(1)-(3)

63.1(a)(4)

63.1(a)(6)-(8)

63.1(a)(11)-(14)

63.1(b)(2)-(3)

63.1(c)(1)-(2)

63.1(c)(4)-(5)

63.1(e)

63.2

63.3

63.4(a)(1)

63.4(a)(3)

63.4(a)(5)

63.4(b)

63.4(c)

63.5(a)

63.5(b)(1)

63.5(b)(3)

63.5(b)(4)-(6)

63.5(d)

63.5(e)

63.5(f)

63.6(a)

63.6(e)

63.6(f)

63.6(g)

63.6(i)

63.6(j)

63.7

63.8(a)(1)

63.8(a)(2)

63.8(a)(4)

63.8(b)(1)

63.8(b)(3)

63.8(c)(1)

63.8(c)(2)

63.8(c)(3)

63.8(c)(6)

63.8(c)(7)

63.8(c)(8)

63.8(d)

63.8(e)

63.8(f)(1)-(5)

63.8(g)

SECTION G - GENERAL PROVISIONS (CONTINUED)

63.9(a)
63.9(b)
63.9(c)
63.9(e)
63.9(g)(1)
63.9(h)
63.9(i)
63.9(j)
63.10(a)
63.10(b)
63.10(c)
63.10(d)(1)
63.10(d)(2)
63.10(d)(4)
63.10(d)(5)
63.10(e)(1)
63.10(e)(2)(i)
63.10(e)(3)
63.10(f)
63.11-63.13

SECTION H – ALTERNATE OPERATING SCENARIOS

The following alternate operating scenarios shall apply to the Westvaco Mill pursuant to this PSD permit:

AOS No. 1: Modification of Recovery Furnace and Lime Kiln

AOS No. 2: Brown Stock Washers Modification

The requirements and monitoring provisions that will apply under each Alternate Operating Scenario are described below:

AOS No. 1 – Modification of Recovery Furnace and Lime Kiln

Unit 00 Entire Mill

Description:

This emissions unit ID represents the entire pulp and paper mill.

Rated Short-term Capacity: 1155 Air-dried tons of unbleached pulp per day

Installation Date: July 1970

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:

F-99-009

Other regulations as described for specific emissions units affected by this permit and contained herein.

1. Operating Limitations:

Pulp production shall not exceed 367,100 air-dried tons per rolling 12 month period. [401 KAR 51:017, 40 CFR 52.21 (PSD)]

Compliance Demonstration Method: Monthly pulp production records shall be maintained and totaled for each rolling 12-month period.

- 2. Emissions Limitations:** Not Applicable to the Entire Mill. Emission limitations associated with specific emission units as a result of this PSD permit are noted with the emission unit section of this permit.
- 3. Testing Requirements:** Not Applicable to the Entire Mill. Testing requirements associated with specific emission units as a result of this PSD permit are noted with the emission unit section of this permit.
- 4. Specific Monitoring Requirements:** Pulp production shall be monitored monthly.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

5. **Specific Recordkeeping Requirements:** Records of pulp production shall be maintained in accordance with the general requirements of Section F.
6. **Specific Reporting Requirements:** See Section F.
7. **Specific Control Equipment Operating Conditions:** Unit Specific, Not Applicable.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)**Unit 03 Recovery Furnace****Description:**

The chemical recovery furnace is designed to recover and regenerate spent cooking chemicals from the wood pulping operations. The furnace also serves as the primary steam generating unit at the mill. The unit is controlled by a wet bottom ESP followed by a wet scrubber.

Rated Short-term Capacity: 473,000 lb steam/hr

Installation Date: July 1970

Permitted Modifications:

- Changing the Sesquasulfate (SQ) carrier;
- Adding additional levels of overfire air to the combustion zone;
- Adding an indirect liquor heater;
- Adding a feedwater heater;
- Adding an air pre-heater
- Adding a sootblower.
- Rebuilding the furnace bottom;
- Replacing the inlet and outlet duct fans;
- Oxygen addition to the combustion zone;
- Upgrade Data Control System (DCS).

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Kentucky Air Quality Operating Permits:

O-84-088

F-99-009

Standards of Performance for New Stationary Sources

40 CFR Part 60 Subpart BB

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart MM [**Future Effective Requirement- January 2004**]

1. **Operating Limitations:** Not Applicable.

2. **Emissions Limitations:**

- a. Emissions of particulate matter (PM) shall not exceed 1.25 lbs/ton of equivalent unbleached air dried pulp produced. [401 KAR 51:017 Section 1(30), 40 CFR 52.21(b)(3) (PSD netting)]

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper operation and maintenance of the ESP and scrubber in accordance with manufacturer's recommended operating practices.

- b. Emissions of particulate matter (PM) shall not exceed 0.044 gr/dscf @ 8% O₂ on a short-term basis. [40 CFR 60.282(a)(1)(i)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper operation and maintenance of the ESP and scrubber in accordance with manufacturer's recommended operating practices.

- c. Emissions of total reduced sulfur (TRS) shall not exceed an exit stack gas concentration of five (5) parts per million by volume, corrected to eight (8) percent by volume oxygen, expressed as an arithmetic average over the two consecutive 12-hour operating periods of each operating day. [40 CFR 60.283(a)(2); and 401 KAR 51:017 Section 9 and 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will continuously monitoring TRS emissions. Compliance will be demonstrated by calculating the 12-hour averages using the arithmetic mean of the appropriate 12 contiguous 1-hour averages.

- d. Visible emissions shall not exceed an opacity of thirty-five (35) percent. [40 CFR 60.282(a)(1)(ii)]

Compliance Demonstration Method: Permittee will continuously monitor the opacity of emissions.

- e. Emissions of Carbon Monoxide (CO) shall not exceed 300 ppm_{dv} @ 8% O₂. [401 KAR 51:017 Section 9 and 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design, operation, and control of the recovery furnace combustion process.

- f. Emissions of Sulfur Dioxide (SO₂) shall not exceed 0.29 lbs/ton of equivalent unbleached air dried pulp produced. [401 KAR 51:017 Section 1(30), 40 CFR 52.21(b)(3) (PSD netting)]

Compliance Demonstration Method: Permittee will demonstrate compliance by the proper operation and maintenance of the scrubber in accordance with manufacturer's recommended operating practices.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

- g. Emissions of Nitrogen Oxides (NO_x) shall not exceed 112 ppm_{dv} @ 8% O₂. [401 KAR 51:017 Section 9, 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design, operation, and control of the recovery furnace combustion process.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Performance tests, emissions testing shall be conducted as required by the division.

4. Specific Monitoring Requirements:

- a. Permittee shall calibrate, maintain, and operate according to manufacturer's specifications a device to continuously measure the total reduced sulfur (TRS) compounds emitted from the recovery furnace exhaust.
- b. Permittee shall measure pressure drop, scrubbing flow rate, and pH across the scrubber once per shift.
- c. Permittee shall monitor precipitator currents, voltages, and check heater operation once per shift.
- d. Permittee shall conduct an inspection of the precipitator vibrators, rappers, and air horns once per day to assure proper operation.
- e. Permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications a device to continuously measure the opacity of gases emitted from the recovery furnace exhaust. The span of this system shall be set at 70 percent.

5. Specific Recordkeeping Requirements:

- a. Permittee shall maintain continuous records of TRS emissions and the opacity of emissions from the recovery furnace.
- b. Permittee shall maintain records of the 12-hour average total reduced sulfur exit stack gas concentrations.
- c. Permittee shall record monitor availability each calendar quarter. For the purpose of calculating monitor downtime, periods of downtime due to scheduled normal monitor maintenance, calibrations, relative accuracy tests, and quality assurance audits do not have to be considered in the total. A log is to be kept of all periods of monitor downtime listing the time the monitor went off-line, the reason for the downtime, the time the monitor was brought back on-line, and any repairs, adjustments, and calibrations performed on the monitor.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

- d. Permittee shall maintain records, recorded once per shift, documenting the scrubber pressure drop, flow rate, and pH.
- e. Permittee shall maintain records, recorded once per shift, documenting the precipitator currents, voltages, and heater parameters.
- f. Permittee shall maintain records, recorded once per day, documenting proper operation of the precipitator vibrators, rappers, and air horns.
- g. Permittee shall record each incident when PM or SO₂ emissions were not properly controlled by the scrubber, or PM emissions were not properly controlled by the ESP. This record shall include the date, time, duration, cause, and any corrective action taken.

All records shall be kept for a period of five years.

6. Specific Reporting Requirements:

- a. If monitor downtime in a calendar quarter exceeds 44 hours or 2% of the recovery furnace operating time, whichever is less, then a written report containing all the information required in Condition 5b shall be submitted to the Paducah Regional Office of the Division for Air Quality by the 28th day of the first month of the next calendar quarter.
- b. Any monitor downtimes of more than eight hours in any calendar day shall be promptly reported to the Paducah Regional Office of the Division for Air Quality by phone, facsimile transmission, or electronic mail within one business day.
- c. A semi-annual report of all 12-hour average TRS concentrations above 5 ppm shall be submitted to the Division for Air Quality.
- d. A summary of the precipitator and scrubber inspection logs shall be included in the semi-annual report submitted to the division.
- e. A semi-annual report of all 6-minute average opacities that exceed 35 percent.

Please refer to additional requirements in Section F.

- 7. **Specific Control Equipment Operating Conditions:** Permittee shall operate the precipitator and wet scrubber in accordance with manufacturer's recommended operating practices. Please refer to Section E.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

Unit 08 Lime Kiln

Description:

The lime kiln is used to calcine lime mud to regenerate quicklime which is used in the production of white liquor. The unit is controlled by a wet scrubber. The kiln is also used as an incineration point for the NCG vent streams in the mill.

Rated Short-term Capacity: 350 tpd

Installation Date: July 1970

Permitted Modifications:

Approved changes shall include:

- Molecular oxygen addition,
- Addition of a lime mud dryer.

Applicable Regulations:

Kentucky Air Quality Operating Permits:

O-84-088

F-99-009

S-94-087

Standards of Performance for New Stationary Sources

40 CFR 60 Subpart BB

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [See Unit No. 56 HVLC System and 57 LVHC system for Applicable Subpart S Requirements]

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart MM [Future Effective Requirement- January 2004]

1. Operating Limitations:

- a. The lime kiln shall be operated in excess of 1200 degrees Fahrenheit with a residence time of at least 0.5 seconds to achieve a 98% destruction efficiency when being used as a control device to meet the requirements of 40 CFR 60 Subpart BB. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Compliance shall be based on achieving an arithmetic average combustion temperature of 1200 degrees Fahrenheit or more over any five (5) minute period. Permittee will demonstrate compliance by monitoring the lime kiln combustion temperature. The kiln is interlocked to switch NCGs to the bark boiler should the temperature fall below 1200 degrees F. Permittee also maintains records demonstrating that the residence time is equal to or greater than 0.5s.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)**2. Emissions Limitations:**

- a. Emissions of particulate matter (PM) shall not exceed 0.067 gr/dscf @ 10% O₂. [40 CFR 60.282(a)(3)(i)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper operation and maintenance of the scrubber in accordance with manufacturer's recommended operating practices.

- b. Emissions of Total Reduced Sulfur (TRS) compounds shall not exceed a concentration of 8 ppm_{dv} @ 10% O₂. [40 CFR 60.283(a)(5); and 401 KAR 51:017 Section 9 and 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design and operation of the kiln.

- c. Emissions of Volatile Organic Compounds (VOC) shall not exceed 1.22 lbs/ton CaO. [401 KAR 51:017 Section 9 and 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design and operation of the kiln.

- d. Emissions of Carbon Monoxide (CO) shall not exceed a concentration of 100 ppm_{dv} @ 10% O₂. [401 KAR 51:017 Section 9 and 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design, operation, and control of the combustion process.

- e. Emissions of Nitrogen Oxides (NO_x) shall not exceed 100 ppm_{dv}. [401 KAR 51:017, 40 CFR 52.21(j)(3) (PSD BACT)]

Compliance Demonstration Method: Permittee will demonstrate compliance with this standard based upon emissions testing as discussed in Section G(d)5 and G(d)6 of this permit and by the proper design, operation, and control of the combustion process.

- 3. Testing Requirements:** Pursuant to 401 KAR 50:045, *Performance tests*, emissions testing shall be conducted as required by the division.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the lime kiln combustion temperature.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

- b. Permittee shall continuously measure pressure loss of the gas stream through the scrubber and the scrubbing liquid supply pressure. [40 CFR 60.284(b)(2)(i and ii)]
- c. Permittee shall install, calibrate, maintain, and operate a continuous monitoring device to measure TRS concentration. [40 CFR 60.284(a)(2)]

5. Specific Recordkeeping Requirements:

- a. Permittee shall maintain records of combustion temperature for the lime kiln and shall perform the necessary calculations to verify the residence time is equal to or greater than 0.5 second.
- b. Permittee shall maintain continuous records of pressure drop and scrubbant flow rate.
- c. Permittee shall maintain continuous records of TRS emission from the lime kiln.
- d. Permittee shall record each incident when PM emissions were not properly controlled by the scrubber. This record shall include the date, time, duration, cause, and any corrective action taken.

All records shall be kept for a period of five years.

- 6. Specific Reporting Requirements:** See Section F. Semiannual reports of all 12-hour average TRS concentrations above 8 ppm shall be submitted to the Division for Air Quality. [40 CFR 60.284(d)]

7. Specific Control Equipment Operating Conditions:

The permittee shall apply the provisions of Section E – Source Control Equipment Requirements to the operation of the scrubber.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

AOS No. 2 – Modification of the Brown Stock Washers

Unit 11 Brown Stock Washer Vents

Description:

The brown stock washers (BSW) are used to wash the pulp prior to the bleaching process. The gases from the NCG system are incinerated in either the Bark Boiler (EP-09) or the Lime Kiln (EP-08).

Rated Short-term Capacity: 50 ODT/hr

Installation Date: July 1970

Permitted Modifications:

Approved changes are as follows:

- Various stock transfer/filtrate pumps
- Repulper upgrades are proposed

Applicable Regulations:

401 KAR 51:017 (40 CFR 52.21), *Prevention of Significant Deterioration of Air Quality*, effective January 6, 1975, is applicable to significant increases from modified emissions units.

Standards of Performance for New Stationary Sources

40 CFR 60 Subpart BB

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S [**April 2006 Compliance Date**]

1. Operating Limitations:

- a. Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

Compliance Demonstration Method: Permittee will assure compliance with the 40 CFR 60 Subpart BB standards based on the existing federally enforceable conditions and monitoring and reporting requirements outlined for this emission unit and the primary and secondary treatment systems (i.e., the Bark Boiler and Lime Kiln, respectively).

- b. All vent gases from the brown stock washer system shall be collected and vented to the HVLC system as defined at 40 CFR 63.441. [40 CFR 63.443(a)(1)(ii)]

Compliance Demonstration Method: Permittee vents all gases to the HVLC system.

2. Emissions Limitations: Not Applicable.

3. Testing Requirements: Pursuant to 401 KAR 50:045, Performance tests, emissions testing shall be conducted as required by the division.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

4. **Specific Monitoring Requirements:** Permittee will monitor the NCG control system as described for Emission Unit 56 – HVLC System.
5. **Specific Recordkeeping Requirements:** Permittee will maintain records for the NCG control system as described for Emission Unit 56 – HVLC System.
6. **Specific Reporting Requirements:** See Section F.
7. **Specific Control Equipment Operating Conditions:** Combust gases in an incinerator or other device at a minimum temperature of 1200 deg. F for at least 0.5 s. [40 CFR 60.283(a)(1)(iii)]

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

Unit 56 High Volume Low Concentration (HVLC) System

Description:

Unit consists of the pulp washing, screening and knotter systems, condensate collection tank, brown stock washer filtrate tank vent gas collection and transport system used to convey HVLC gases to the bark boiler (primary control system) or lime kiln (secondary control system) as defined in 40 CFR 63.441.

Rated Short-term Capacity: 1155 Air-dried tons of unbleached pulp per day

Installation Date: April 16, 2006 (Initial MACT Compliance Date)

Permitted Modifications:

Not modified. Included as the primary system for venting NCG gases from Emission Unit 11 to the bark boiler (primary control system) or lime kiln (secondary control system).

Applicable Regulations:

National Emissions Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart S

1. Operating Limitations:

a. **Operating Requirements.** [40 CFR 63.443(c)]

Affected systems shall be enclosed and vented into a closed-vent system into a closed vent system meeting the following requirements:

- Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in 40 CFR 63.457(e).
- Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.
- Each component of the closed-vent system used to comply with Secs. 63.443(c), 63.444(b), and 63.445(b) that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in 40 CFR 63.457(d).
- Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in Secs. 63.443, 63.444, or 63.445 shall comply with either of the following requirements:
 - (1) On each bypass line, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or
 - (2) For bypass line valves that are not computer controlled, the owner or operator shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)

- b. Affected Systems shall comply with the requirements of 40 CFR 63 Subpart A – General Provisions as specified in 40 CFR Part 63 Subpart S Table 1.

2. Emissions Limitations:

Permittee shall vent both LVHC and HVLC gases to the same control device. Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed four (4) percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems. [40 CFR 63.443(e)]

3. Testing Requirements: Not Applicable.**4. Specific Monitoring Requirements:**

Each enclosure and closed-vent system used to comply with 40 CFR 63.450(a) shall comply with the following monitoring requirements [40 CFR 63.453(k)]:

- (1) For each enclosure opening, a visual inspection of the closure mechanism specified in 40 CFR 63.450(b) shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.
- (2) Each closed-vent system required by 40 CFR 63.450(a) shall be visually inspected every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.
- (3) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in 40 CFR 63.450(c) measured initially and annually by the procedures in 40 CFR 63.457(d).
- (4) Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 40 CFR 63.457(e).
- (5) The valve or closure mechanism specified in 40 CFR 63.450(d)(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.
- (6) If an inspection required by paragraphs (k)(1) through (k)(5) of this section identifies visible defects in ductwork, piping, enclosures or connections to covers required by 40 CFR 63.450, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.
 - (i) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.
 - (ii) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

SECTION H – ALTERNATE OPERATING SCENARIOS (CONTINUED)**5. Specific Recordkeeping Requirements:**

For each applicable enclosure opening, closed-vent system, and closed collection system, the owner or operator shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection [40 CFR 63.454(b)]:

- (1) Date of inspection;
- (2) The equipment type and identification;
- (3) Results of negative pressure tests for enclosures;
- (4) Results of leak detection tests;
- (5) The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
- (6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
- (7) Repair methods applied in each attempt to repair the defect or leak;
- (8) The reason for the delay if the defect or leak is not repaired within 15 days after discovery;
- (9) The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- (10) The date of successful repair of the defect or leak;
- (11) The position and duration of opening of bypass line valves and the condition of any valve seals; and
- (12) The duration of the use of bypass valves on computer controlled valves

6. Specific Reporting Requirements: Each owner or operator of a source subject to this permit shall comply with the reporting requirements of Subpart A of this part as specified in Table 1 and all the following requirements in this section. [40 CFR 63.455(a)]

7. Specific Control Equipment Operating Conditions: Affected systems vented into a closed-vent system shall be routed to the bark boiler or lime kiln by introducing the HAP emission stream with the primary fuel or into the flame zone. [40 CFR 63.443(c)]

SECTION I - COMPLIANCE SCHEDULE

Not Applicable.